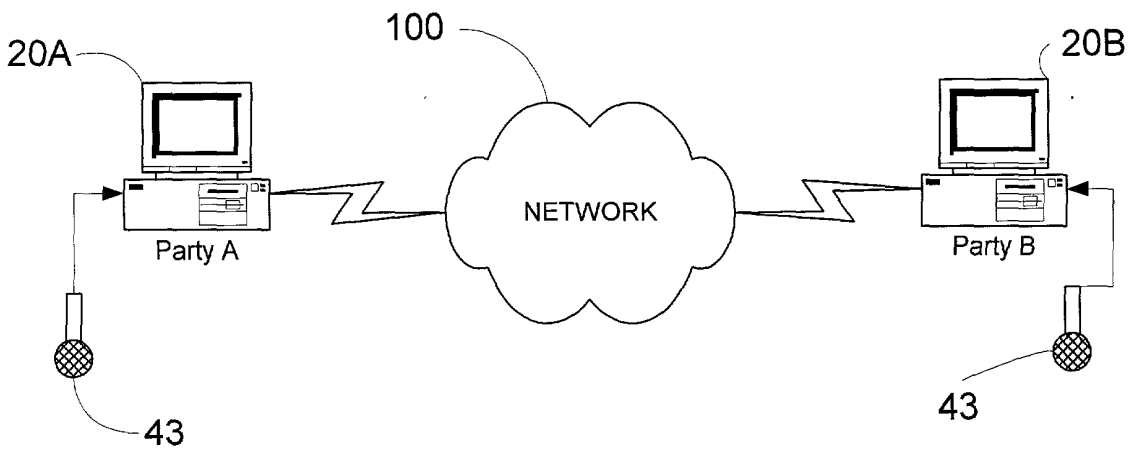
FIG. 1



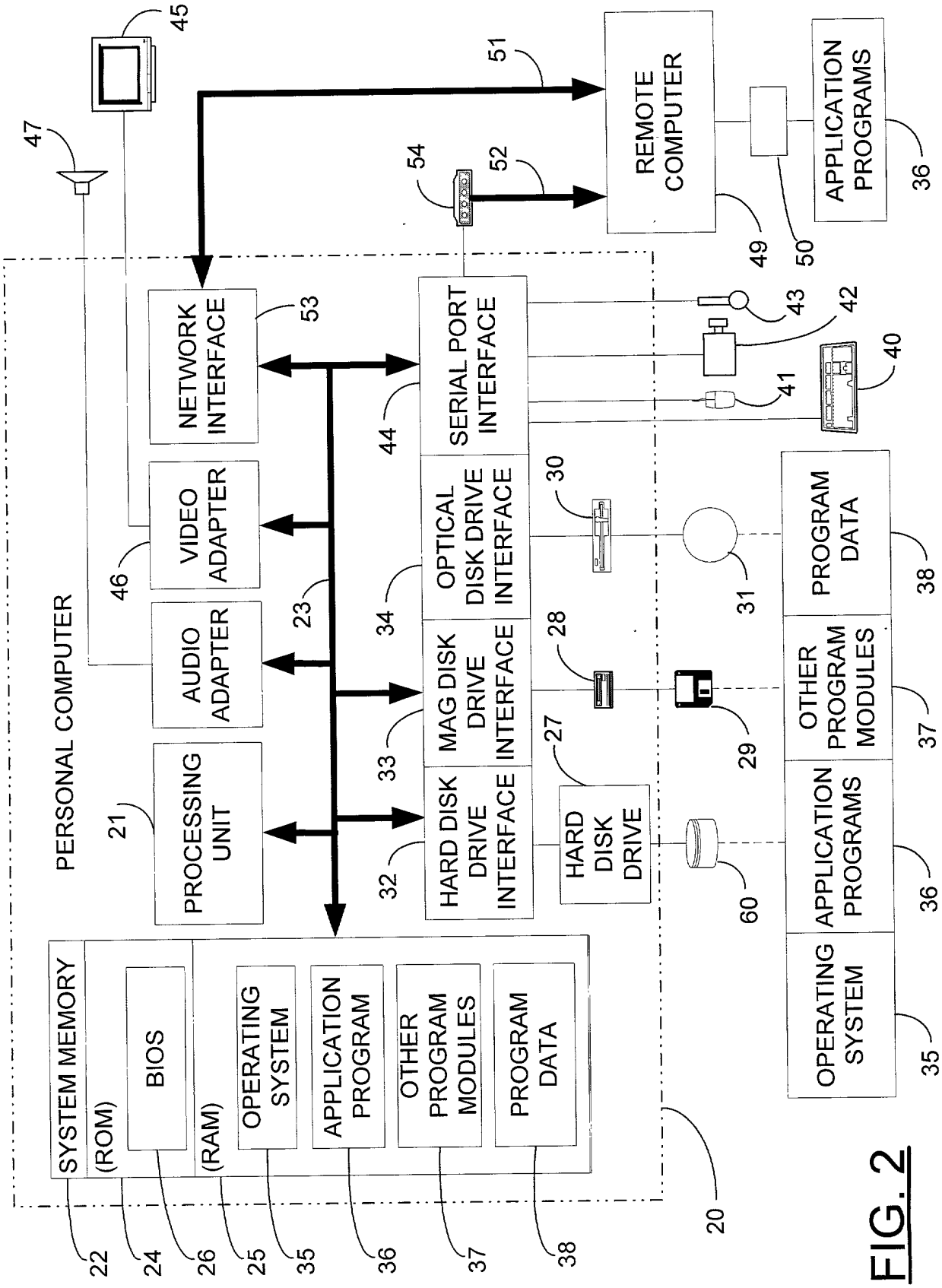

PERSONAL COMPUTER
PROCESSING UNIT
SYSTEM MEMORY
(ROM)
BIOS
(RAM)
OPERATING SYSTEM
APPLICATION PROGRAM
OTHER PROGRAM MODULES
PROGRAM DATA
HARD DISK DRIVE INTERFACE
MAG DISK DRIVE INTERFACE
OPTICAL DISK DRIVE INTERFACE
AUDIO ADAPTER
VIDEO ADAPTER
NETWORK INTERFACE
SERIAL PORT INTERFACE
HARD DISK DRIVE
REMOTE COMPUTER
APPLICATION PROGRAMS
OPERATING SYSTEM
APPLICATION PROGRAMS
OTHER PROGRAM MODULES
PROGRAM DATA
20
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FIG. 2

FIG. 3a

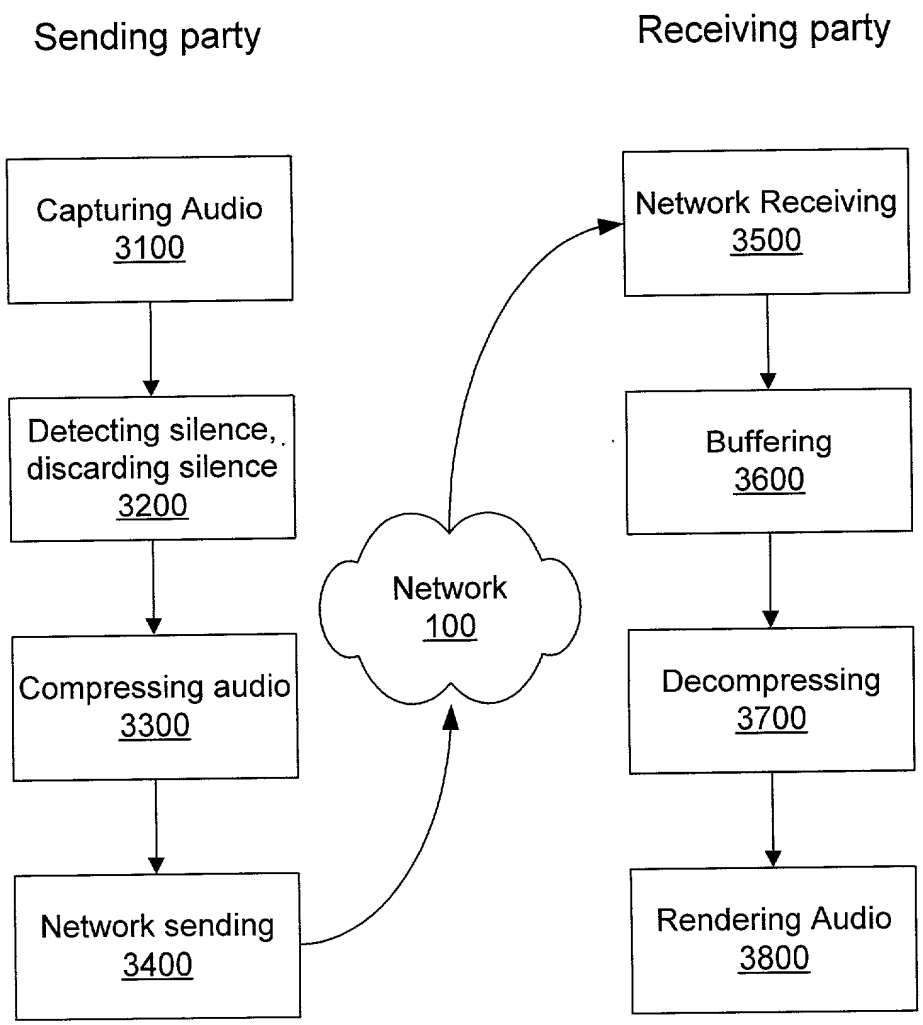

Sending party
Receiving party
Capturing Audio
3100
Detecting silence, discarding silence
3200
Compressing audio
3300
Network sending
3400
Network
100
Network Receiving
3500
Buffering
3600
Decompressing
3700
Rendering Audio
3800

FIG. 3b

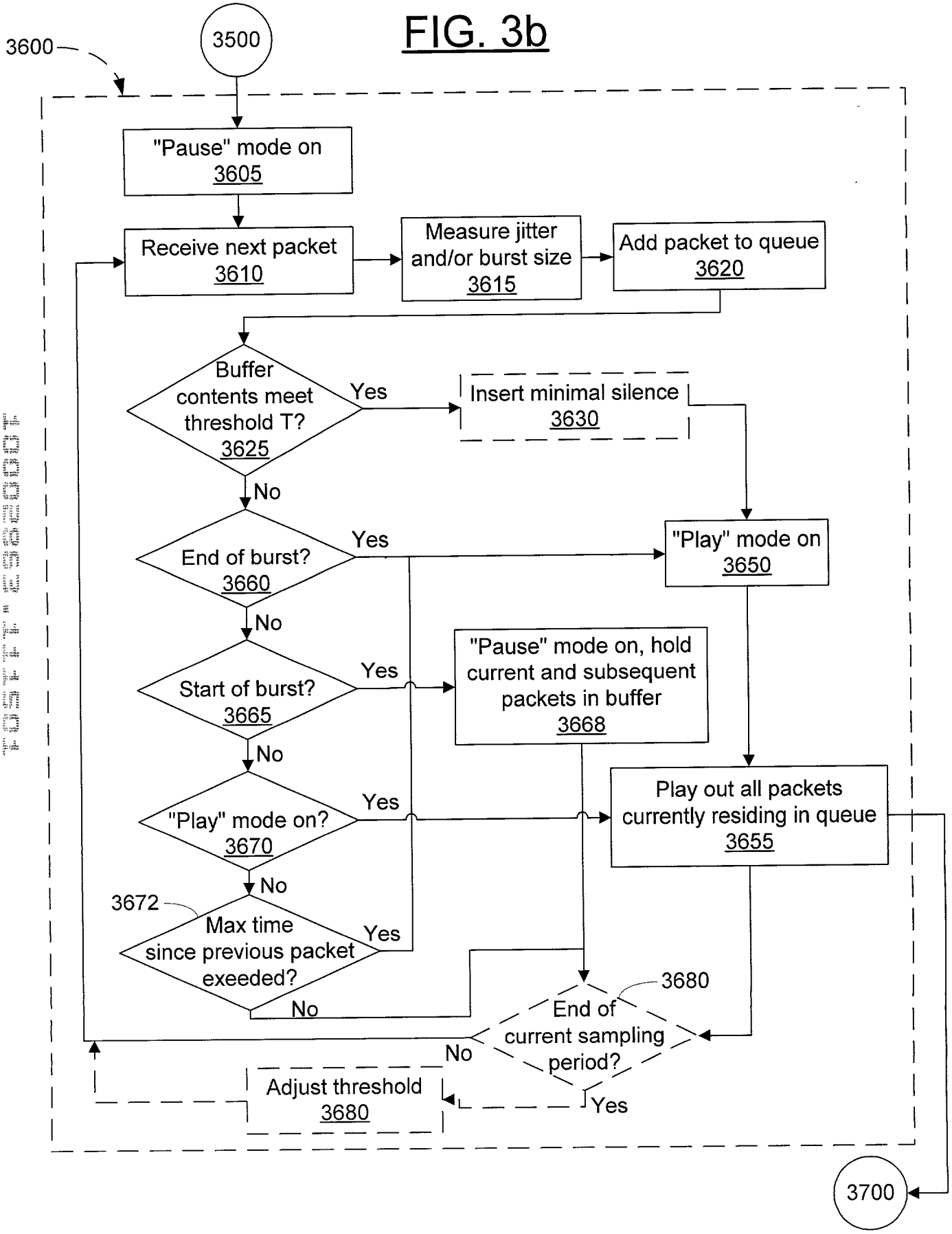

3600
3500
"Pause" mode on
3605
Receive next packet
3610
Measure jitter and/or burst size
3615
Add packet to queue
3620
Buffer contents meet threshold T?
3625
Yes
Insert minimal silence
3630
No
End of burst?
3660
Yes
"Play" mode on
3650
No
Start of burst?
3665
Yes
"Pause" mode on, hold current and subsequent packets in buffer
3668
No
"Play" mode on?
3670
Yes
Play out all packets currently residing in queue
3655
No
3672
Max time since previous packet exeeded?
Yes
No
3680
End of current sampling period?
No
Yes
Adjust threshold
3680
3700

FIG. 3c

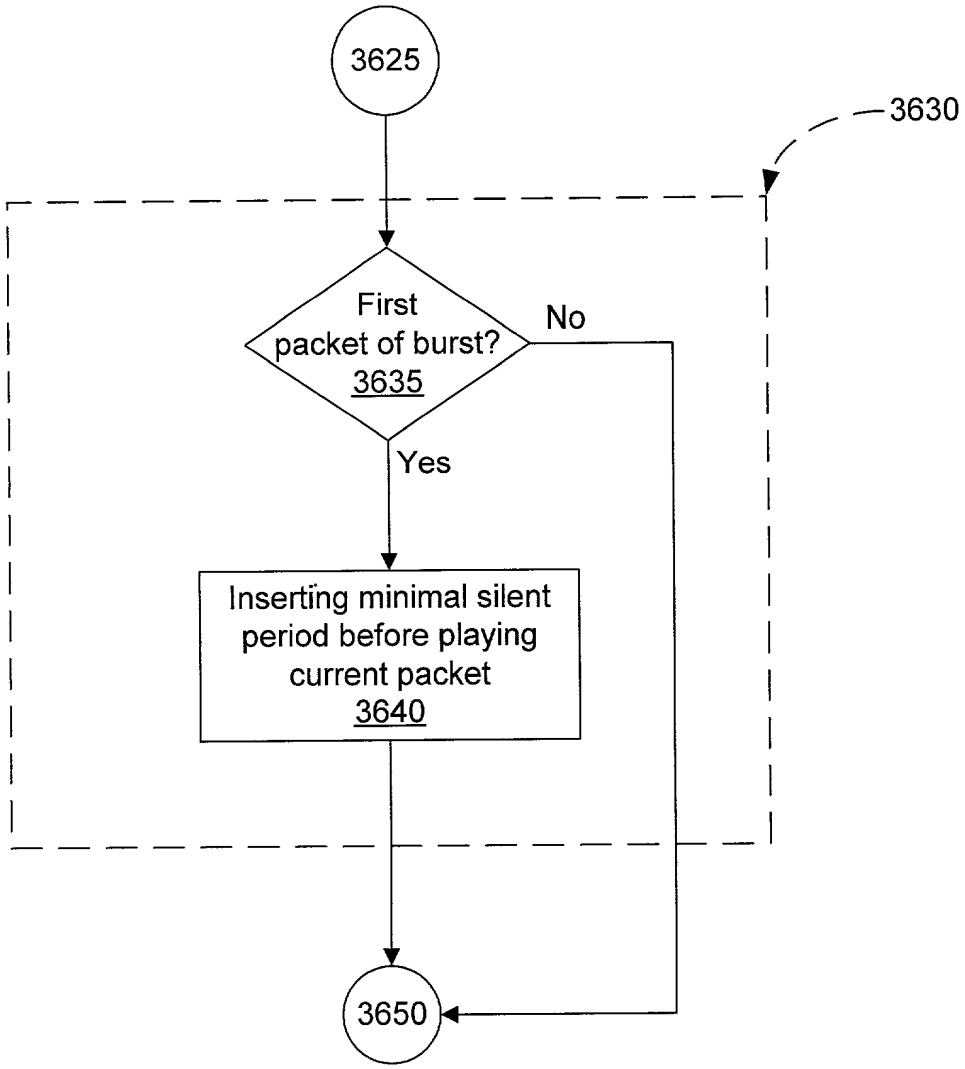

3625
3630
First packet of burst? 3635
No
Yes
Inserting minimal silent period before playing current packet 3640
3650

FIG. 4a

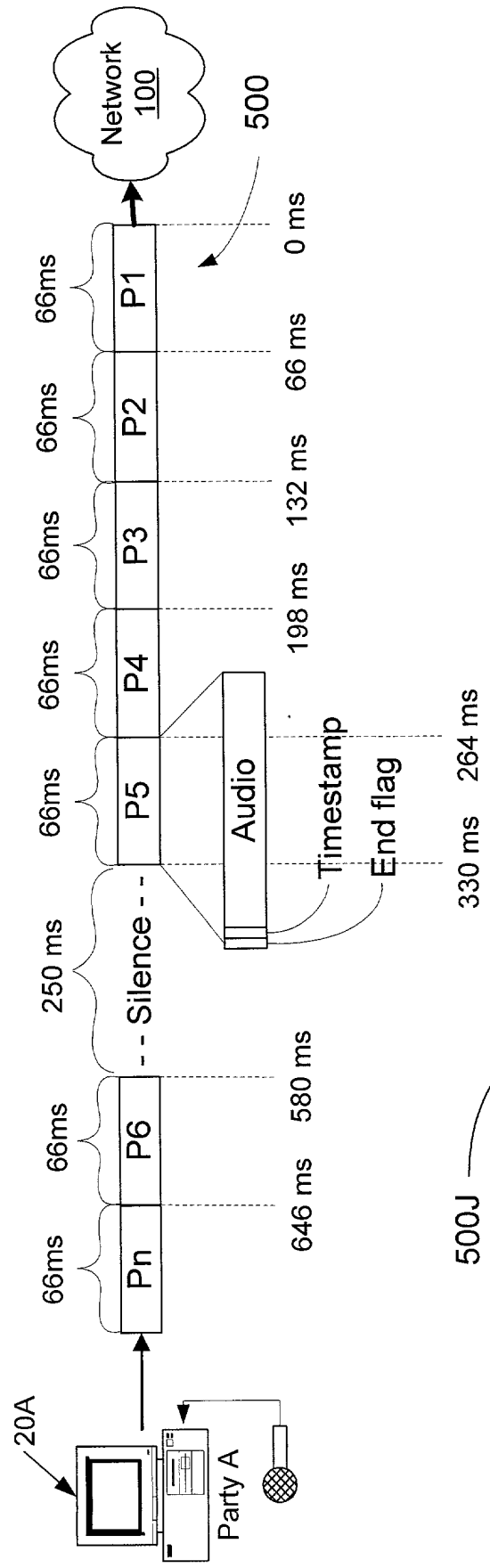
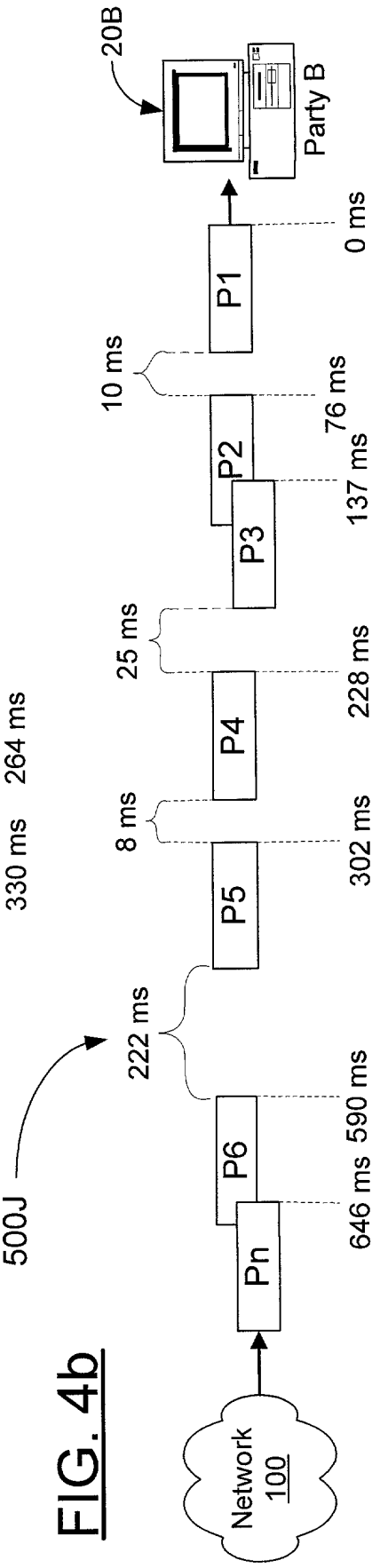

20A
Party A
Network
100
500
66ms
Pn
P6
P5
P4
P3
P2
P1
- - Silence - -
250 ms
Audio
Timestamp
End flag
0 ms
66 ms
132 ms
198 ms
264 ms
330 ms
580 ms
646 ms

FIG. 4b


20B
Party B
Network
100
500J
Pn
P6
P5
P4
P3
P2
P1
222 ms
8 ms
25 ms
10 ms
0 ms
76 ms
137 ms
228 ms
302 ms
590 ms
646 ms

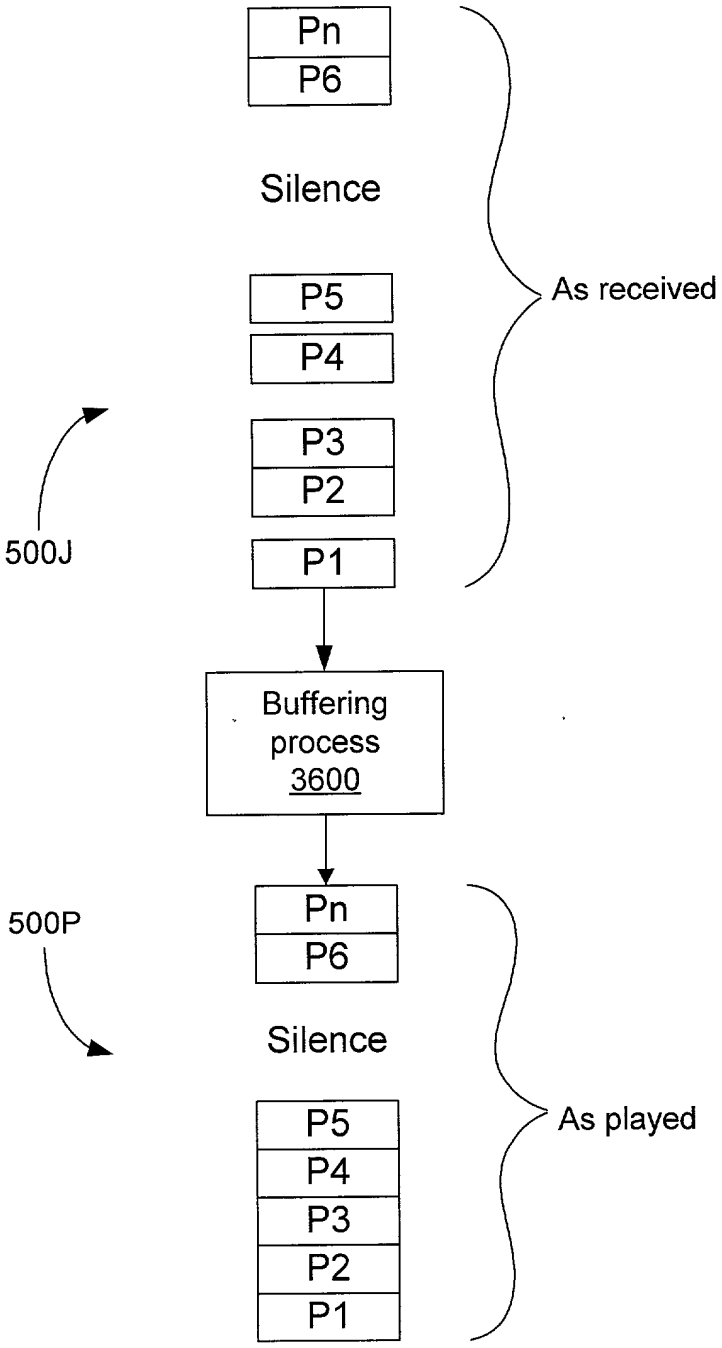

Pn
P6
Silence
P5
P4
P3
P2
P1
As received
500J
Buffering process 3600
500P
Pn
P6
Silence
P5
P4
P3
P2
P1
As played

FIG. 5

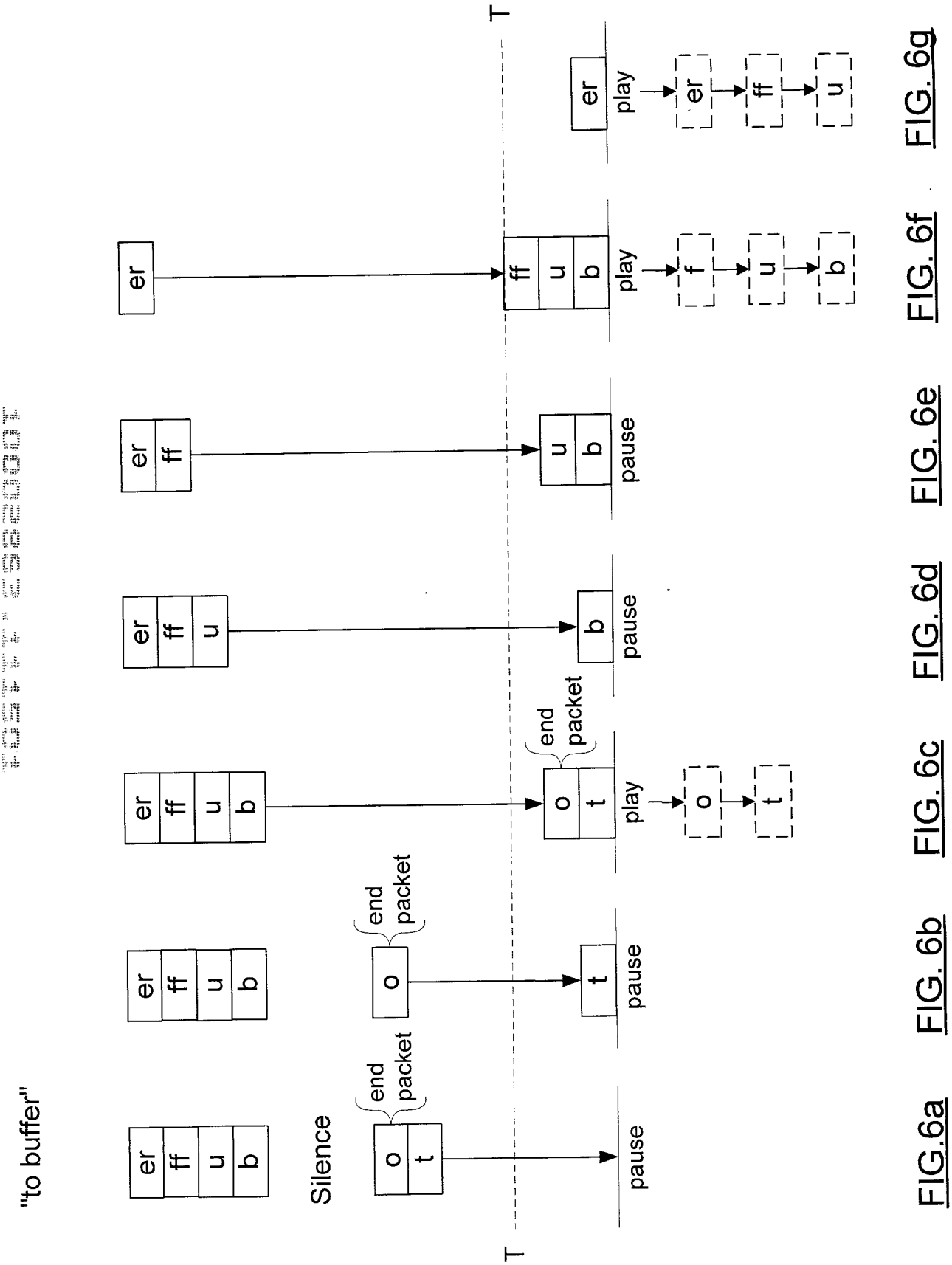



FIG.6a FIG. 6b FIG. 6c FIG. 6d FIG. 6e FIG. 6f FIG. 6g